

Webology, Volume 5, Number 4, December, 2008

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Editorial**Scientific collaboration and quality of scientific research**

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There are indications in the literature that scientific collaborations increase the quality of papers, research productivity, and the number of citations (e.g., [Katz and Martin](#), 1997; [Hollis](#), 2001; [Frenken, Hotzel, & De Vor](#), 2005; [Figg et al.](#), 2006). A simple study on the top 100 most-cited papers from the top 10 universities also confirms this. I selected the top 10 universities from the [Academic Ranking of World Universities](#) (2008) and then for each university I chose 10 most-cited papers. For this I conducted a search in the "Affiliation Search" box of *Scopus* for each university, and the resulting papers were ranked by the number of citations (ordered by "Cited By") that each paper has received since its publication until 2009, and then I examined the top 10 highly-cited papers (see Table 1).

Table 1. The number of co-authored papers occurrences in the top ten universities

World Rank	University	No. of co-authored papers	No. of single-authored papers
1	Harvard University	8	2
2	Stanford University	10	
3	University of California - Berkeley	8	2
4	University of Cambridge	8	2
5	Massachusetts Institute of Technology (MIT)	8	2
6	California Institute of Technology	10	
7	Columbia University	8	2
8	Princeton University	7	3
9	University of Chicago	6	4
10	University of Oxford	10	
Total		83	17

The table shows that only a small fraction of the top 100 papers ranked by the number of citations (17 of 100) were published by single authors. In other words, most of the papers (83%) were the results of scientific collaborations by two or more authors. It is obvious that the majority of the top 100 papers produced by the top 10 universities are co-authored papers and thus are collaborative works. In other words, a published paper resulting from collaborative work has a higher chance of attracting more citations.

This study indicates that there is a significant relationship between the high citation counts and co-authorships, i.e. highly cited papers are mainly co-authored. It seems that team working has a direct impact on the quality of papers and the number of citations. While the regulations for promotion of academics in many countries might not be very helpful for

encouraging team-working, we can see that collaboration and team working has many benefits, including the increased quality of the scientific publications.

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Bibliographic information of this paper for citing:

Noruzi, Alireza (2008). "Editorial: Scientific collaboration and quality of scientific research." *Webology*, 5(4), editorial 18. Available at: <http://www.webology.org/2008/v5n4/editorial18.html>

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